EXHIBIT 1

Boundary Hydroelectric Project
(FERC No. 2144)

Proposed License Articles
Seattle City Light

March 2010

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Article 1. ***Operations*.**

(a) From Memorial Day weekend (starting Friday evening) through Labor Day weekend (ending on Monday evening), licensee will maintain forebay water surface elevations at or above 1,984 feet NAVD 88 from 6:00 am through 8:00 pm, to facilitate recreational access and use. From 8:00 pm through 6:00 am licensee will maintain forebay water surface elevations at or above 1,982 feet NAVD 88. The licensee must comply with these elevations except under the following conditions or events: equipment failures; unanticipated events during maintenance activities, which require extended scheduled repair and maintenance outages; electrical and mechanical device limitations; safety inspections; testing; natural disasters (e.g. lightning); load and reserve support as required by the Western Electricity Coordinating Council (WECC) and North American Electric Reliability Corporation (NERC) to maintain Project and regional energy stability and reliability; capacity and energy emergencies; and any event that triggers the Project Emergency Action Plan (EAP). Licensee shall notify the Commission and the Parties following any such conditions. In addition, to monitor compliance with the pool elevation requirements, licensee will provide an annual report to the Commission and Parties identifying any excursion from pool elevation requirements including the cause and corrective measure, if applicable.

(b) To reduce total dissolved gas (TDG) under normal, non-spill operations, licensee will operate Units 55 and 56 above 125 MW and sequence their startup and shutdown so that they are the last units to be brought on line and the first units to be shut down. During the new license term, licensee will upgrade generating equipment at the Boundary power plant consistent with the schedule set forth in Exhibit A included in the Boundary License Application Addendums. Upon completion of any turbine upgrades, licensee shall evaluate the need for the unit sequencing set forth in this paragraph in consultation with the Boundary Relicensing Settlement Parties, and based upon such evaluation may propose revisions to, or elimination of, unit sequencing requirements through a license amendment application.

Article 2. *Boundary Resource Coordinating Committee and Work Groups*

This Article shall be implemented pursuant to Section 8 of the Settlement Agreement. Within 90 days after issuance of the New License, the licensee shall convene the Boundary Resource Coordinating Committee (BRCC). Within 180 days after issuance of the New License, the licensee shall convene the following Work Groups:

- Fish and Aquatics Work Group
- Terrestrial Resources Work Group
- Recreation Resources Work Group
- Water Quality Work Group (and Total Dissolved Gas Subgroup)
- Cultural Resources Work Group

The licensee shall bear all meeting room rental, materials, and similar costs associated with conducting BRCC and Work Group meetings.

The licensee shall arrange, administer, and chair all BRCC and Work Group meetings. The licensee shall consult with the Work Groups on all aspects of the Settlement Agreement, New License, and Management Plans (collectively referred to as "Project Documents"). The licensee shall convene the Work Groups as needed to meet the consultation requirements of the Project Documents, but at least annually for the license term and any annual licenses.

"Consultation" as used in this Article and in the Project Documents means that the licensee shall obtain the views of and attempt to reach consensus among the specific Parties, specific Work Groups, and the BRCC whenever consultation is required in the Project Documents. Consultation shall not mean consultation under section 7 of the Endangered Species Act or other state and federal laws requiring consultation unless specifically provided.

Article 3. ***Terrestrial Resources.***

(a) The licensee shall implement the Terrestrial Resources Management Plan (TRMP) to implement terrestrial resource protection, mitigation, and enhancement (PM&E) measures. Licensee shall implement TRMP in consultation with the Terrestrial Resources Work Group (TRWG).

(b) The TRMP shall be the principal instrument for management of, implementation, monitoring and adaptation of PM&E measures for terrestrial resources affected by or related to the project. The licensee shall achieve the goals and objectives described in the TRMP through implementation of the following programs:

(i) Erosion program

(ii) Habitat protection and enhancement program

(iii) Integrated weed management program

(iv) Rare, threatened or endangered plant species program

(v) Wildlife program

(vi) Shoreline management program

(c) The licensee shall manage any Project Habitat Lands acquired pursuant to Article 4 (Land Acquisition) as set forth in section (d) of that Article.

(d) The annual TRMP report shall:

(i) Document the implementation of PM&E measures as scheduled in the TRMP

(ii) Describe the current year's and Out Year proposals for implementing scheduled management actions pursuant to the TRMP

(iii) Document consultation activities related to the TRMP

(iv) Document the results of monitoring of completed actions (to the extent monitoring is required for any particular action) to ensure proper implementation and effectiveness

(e) The licensee shall, in consultation with the TRWG, develop those monitoring protocols and data forms identified in the TRMP and file them with the Commission for approval within 180 days of license issuance. The licensee shall include documentation of consultation, copies of comments and recommendations on the protocols after they have been prepared and provided to the TRWG and specific descriptions of how the TRWG's comments are accommodated by the protocols.

(f) The licensee, as part of the TRMP, shall develop and implement an adaptive management process to monitor implementation and effectiveness of terrestrial resource PM&E measures, and adapt implementation measures as needed to meet resource specific goals and objectives. The licensee, in consultation with the TRWG, shall develop adaptive management proposals, including protocols and schedules. The TRMP shall be reviewed, and as necessary amended, every five years during the license term in consultation with the TRWG as part of the adaptive management process. TRMP amendments shall be filed with the Commission for approval. Upon Commission approval, the licensee shall implement the amended plan.

(g) The licensee shall include with the TRMP amendments stipulated in section (f) above, documentation of consultation, copies of comments and recommendations on the plan amendments after they have been prepared and provided to the TRWG and specific descriptions of how the TRWG's comments are accommodated by the plan amendments.

(h) Licensee shall prepare any proposed amendments to the TRMP in consultation with the TRWG and subject to approval by the United States Forest Service prior to filing with the Commission. Licensee shall file any proposed amendments to the TRMP with the Commission for approval prior to implementation.

(i) The Commission reserves the right to require changes to the plan. Implementation of plan amendments shall not begin until the amendments are approved by the Commission. Upon Commission approval, the licensee shall implement the plan amendments, including any changes required by the Commission.

Article 4. ***Land Acquisition.***

(a) The licensee shall acquire additional Project Habitat Lands within five years of license issuance and shall promptly bring the acquired lands into the Project boundary. The licensee, in consultation with the Terrestrial Resources Work Group (TRWG), shall prioritize and select parcel(s) for acquisition using the habitat criteria described below to attain the stated targets. The licensee shall notify the Commission of the location and acreage of land acquired and submit updated License Exhibit G maps within 90 days of acquisition.

(b) The Project Habitat Lands acquired by licensee, pursuant to this Article, shall achieve the targets of approximately 158 acres of riparian and upland habitat and approximately 13,022 lineal feet of varying habitats immediately adjacent to water features. Licensee shall acquire Project Habitat Lands between the near ridgelines east and west of the Project and identified as the secondary study area in the Revised Study Plan for Rare, Threatened and Endangered Wildlife Species (Study No. 18) (SCL 2007). The eastern boundary roughly aligns with Boundary Ridge, Crowell Mountain, and Sand Creek Mountain and the ridge between Boundary Reservoir and Sullivan Lake. On the west side, the boundary follows a line connecting Frisco, Abercrombie, Litton and Baldy mountains. Water features include perennial flat-water bodies, streams, wetlands or seeps. Targets may be accomplished and applied by the licensee to the same parcel of land, provided that the parcel meets the described habitat criteria. An example of applying the targets to the same parcel includes a parcel that contains both riparian and upland habitat, as well as a perennial water feature. Acres and lineal feet would be calculated for the riparian and upland habitat, and for the perennial water feature, respectively.

(c) The licensee, in consultation with the TRWG, shall apply the following habitat objectives to identify and prioritize property acquisitions:

(i) Acquire property with high habitat diversity located immediately adjacent to or containing perennial water and secure from disturbance via open roads or towns, and/or a natural community that is relatively scarce or dwindling in the watershed, which has unique landscape or habitat elements or rare species occurrences. For purposes of this Article, "high habitat diversity" means three or more habitat types (e.g., riparian, wetland, upland, meadow)

(ii) Acquire large block(s) of habitat rather than small, scattered parcels (to manage for species with large home ranges and to provide for diverse landscapes) that are contiguous with other protected parcels of land (i.e., Bureau of Land Management, United States Department of Agriculture, United States Forest Service ownership), form a strong corridor link or are connected by a viable corridor to protected land

(iii) Acquire property with habitats that benefit any of the following wildlife species groups (especially where use of a parcel by these species groups is documented):

1. Threatened, endangered, candidate and special status species
2. Big game
3. Waterfowl
4. Upland game birds (i.e., forest grouse and turkey)
5. Amphibians
6. Aquatic furbearers
7. Neotropical migrant birds

(d) Within one year of acquisition of the additional Project Habitat Lands, the licensee shall, in consultation with the TRWG, develop parcel specific habitat objectives and implementation tasks for the long-term management of these lands consistent with Terrestrial Resources Management Plan (TRMP) goals. Management plans for acquired parcels shall be incorporated into the TRMP which shall be filed with the Commission.

Article 5. ***Recreation Resources.***

(a) The licensee shall implement the RRMP to enhance recreation resources at the Boundary Project in consultation with a RRWG.

(b) The RRMP is an implementation plan that the licensee will use to monitor, design, construct, fund, operate and maintain existing and proposed public recreation facilities and programs at the Project. The RRMP includes the following programs:

(i) Recreation Facility Capital Improvements Program

(ii) Recreation Facility Operations and Maintenance Program

(iii) Shoreline Dispersed Recreation Management Program

(iv) Recreation Monitoring Program

(v) Multi-Resource Interpretation and Education Program

(c) The licensee's RRMP implementation responsibilities include the following:

(i) Funding and implementing all aspects of the RRMP

(ii) Coordinating all aspects of the RRMP with the RRWG and other interested parties, as needed

(iii) Consulting with the RRWG and other interested parties when necessary and as directed by license and the RRMP

(iv) Preparing an annual Recreation Action and Work Plan in consultation with the RRWG, distributing it for review to the RRWG and other interested parties as requested, and submitting it to the Commission

(v) Periodically amending the RRMP, if needed, in consultation with the RRWG, distributing the amended RRMP to the RRWG and other interested parties for review, and submitting it to Commission

(d) The annual RRMP report shall:

(i) Identify the measures implemented as scheduled in the RRMP

(ii) Identify current year and Out Year proposals for implementing scheduled recreation management actions

(iii) Reconcile and document differences between each year's proposals and any replacement or additional measures agreed upon by the licensee and the affected agencies

(iv) Document consultation related to the RRMP

(v) Document the results of monitoring of completed actions (to the extent monitoring is necessary for any particular action) to ensure proper implementation and effectiveness

(e) Licensee shall prepare any proposed amendments to the RRMP in consultation with the RRWG and subject to approval by the United States Forest Service prior to filing with the Commission. Licensee shall file any proposed amendments to the RRMP with the Commission for approval prior to implementation.

(f) The Commission reserves the right to require changes to the plan. Implementation of plan amendments shall not begin until the plan amendments are approved by the Commission. Upon Commission approval, the licensee shall implement the plan amendments, including any changes required by the Commission.

Article 6. ***Well Decommissioning*.**

The licensee shall implement the Monitoring Well and Road Decommissioning Plan contained in Exhibit 4 to the Boundary Hydroelectric Project Relicensing Settlement Agreement.

Article 7. ***Programmatic Agreement.***

(a) The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission and the Washington State Historic Preservation Officer for Managing Historic Properties that may be Affected by a License Issuing to Seattle City Light for the Continued Operation of the Boundary Hydroelectric Project in Pend Oreille County, Washington (FERC No. 2144)," executed on _____, 20__, including but not limited to the Historic Properties Management Plan (HPMP) for the Project. In the event that the Programmatic Agreement is terminated, the licensee shall continue to implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license.

Article 8. ***Water Quality Plans.***

(a) The licensee shall implement the following water quality plans, all of which have been approved by the Washington Department of Ecology (Ecology) and by the Commission (Water Quality Plans) and are contained in Exhibits 6-10 to the Boundary Hydroelectric Project Relicensing Settlement Agreement:

(i) Aquatic Invasive Species Control and Prevention Plan

(ii) Dissolved Oxygen Attainment Plan

(iii) Fish Tissue Sampling Plan

(iv) Temperature Attainment Plan

(v) Total Dissolved Gas Attainment Plan

(b) Any amendments to the Water Quality Plans shall be in consultation with the Water Quality Work Group (WQWG) and subject to the approval of Ecology before filing with the Commission.

(c) The Commission reserves the right to require changes to the amended plan. Implementation of the amended plan by the licensee shall not begin until it is approved by the Commission. Upon Commission approval, the amended plan becomes a requirement of the license, and the licensee shall implement the amended plan, including any changes required by the Commission.

Article 9. ***Fish and Aquatic Resources.***

The licensee shall implement the Fish and Aquatics Management Plan (FAMP) to implement fish and aquatic resource protection, mitigation, and enhancement (PM&E) measures.

(a) The FAMP shall be the principal guiding document for the planning, implementation, monitoring, adaptive management and reporting of PM&E measures for fish and aquatic resources affected by or related to the Project. The FAMP includes specific goals for fish and aquatic resources, as well as clearly defined objectives for achieving the goals.

(b) The following license articles govern the resource management programs as described in the FAMP:

(i) 9 (A) Mainstem Fish Community and Aquatic Habitat Measures

(ii) 9 (B) Upstream Fish Passage

(iii) 9 (C) Reduction of Project Related Entrainment Mortality

(iv) 9 (D) Tributary Non-native Trout Suppression and Eradication

(v) 9 (E) Tributary Fish Community and Aquatic Habitat Measures

(vi) 9 (F) Mill Pond Dam Site Monitoring and Maintenance

(vii) 9 (G) Native Salmonid Conservation Program

(viii) 9 (H) Recreational Fish Stocking Program

(ix) 9 (I) Fund for Habitat Improvements in Tributaries to Sullivan Lake

(c) The licensee shall, in consultation with the Fish and Aquatics Work Group (FAWG), develop and implement an adaptive management process including protocols and schedules to monitor implementation and effectiveness of measures identified in the FAMP, and adapt implementation measures as needed to meet resource specific goals and objectives.

(d) The licensee shall prepare a FAMP annual report and file it with the Commission pursuant to Article 2 and the FAMP. The report shall include subsections for each PM&E measure, with content dependent on the specific reporting requirement for the PM&E measure, and the activities that occurred during the year.

(e) The licensee shall prepare any proposed amendments to the FAMP in consultation with the FAWG and subject to approval by the United States Forest Service, Department of Interior and Washington Department of Ecology prior to filing with

the Commission. The licensee shall file any proposed amendments to the FAMP with the Commission for approval prior to implementation.

(f) The Commission reserves the right to require changes to the plan. Implementation of plan amendments shall not begin until the plan amendments are approved by the Commission. Upon Commission approval, the licensee shall implement the plan amendments, including any changes required by the Commission.

Article 9 (A). ***Mainstem Fish Community and Aquatic Habitat Measures.***

The licensee shall implement the Fish and Aquatics Management Plan (FAMP), Section 5.1, to: (1) enhance mainstem reservoir habitat by providing additional spawning gravel below Box Canyon Dam to increase potential mountain whitefish spawning habitat in the upper project reservoir, (2) modify trapping pools in the area known as the Cobble Sisters to reduce the risk of fish of being trapped in the pools during periods of declining flow and reservoir water surface elevations, (3) enhance tributary delta habitat by providing additional cover, in the form of large woody debris (LWD) jams, for salmonids occupying coldwater refugia at tributary mouths, and (4) conduct fish community surveys and evaluate predation on outmigrating native salmonids at select tributary deltas.

(a) Gravel Augmentation Below Box Canyon Dam

(i) The licensee shall enhance mainstem reservoir habitat by providing additional spawning gravel below Box Canyon Dam to increase potential mountain whitefish spawning habitat in the upper project reservoir. The spawning gravel will be of a size distribution suitable for use by spawning mountain whitefish and will be placed at up to six sites between Project river mile (PRM) 29.1 and Box Canyon Dam; final site selection will be in consultation with and subject to approval by the Fish and Aquatics Work Group (FAWG). To increase gravel retention at the placement sites, licensee shall install boulders in weirs or according to other structural designs.

(ii) The licensee shall complete implementation planning for spawning gravel placement and modification of the trapping pools within three years following license issuance in consultation with and subject to approval by the FAWG. Implementation planning will identify depth, velocity, existing substrate, proximity to existing mountain whitefish spawning areas, and other criteria deemed necessary for final site selection.

(iii) Licensee shall construct the boulder weirs and gravel placement in two steps: up to four of the sites will be constructed in the fourth year following license issuance, and the remaining sites will be constructed in the tenth year following license issuance. The design and location of the tenth-year gravel augmentation sites will be approved by the FAWG and will consider the effectiveness of sites constructed in the fourth year following license issuance.

(iv) The licensee shall conduct baseline monitoring at the proposed augmentation sites to provide information on pre-treatment site conditions. The baseline monitoring efforts will include measurements of gravel depth, gravel area, sediment size distribution, number and size of boulders, and water depth and velocity to evaluate whether augmented gravel sites provide potential mountain whitefish spawning habitat. The licensee shall prepare a compliance report following gravel and boulder placement to confirm compliance with design specifications.

Physical and biological monitoring will be conducted to guide future replenishment efforts.

(v) Licensee shall conduct physical effectiveness monitoring beginning in the ninth year following license issuance and every five years thereafter to assess the need for gravel and boulder replenishment. Licensee shall conduct biological monitoring for three consecutive years following the fourth-year and tenth-year gravel placement, and in the 15th, 20th and 25th year following license issuance. Information obtained from the physical and biological monitoring will be used to guide the design of the tenth-year gravel placement sites and gravel and boulder replenishment. Based on the physical and biological effectiveness monitoring, the FAWG may determine remediation measures within the specified limits of the gravel augmentation measure, as defined in the FAMP.

(vi) The reporting and implementation schedule for mainstem gravel augmentation is summarized below.

Protection, Mitigation, and Enhancement (PM&E) Measure Activity	**Schedule**
Implementation Planning	Within three years of license issuance
Baseline Monitoring	Within three years of license issuance
Initial Construction of up to Four Sites	In the fourth year following license issuance
Construction of Remaining Gravel Sites	In the tenth year following license issuance
Gravel/Boulder Replenishment	In the tenth year following license issuance and every five years thereafter, as needed, based on FAWG determination
Compliance Reporting	Following gravel placement or replenishment (In the fourth year and tenth years following license issuance and every five years thereafter)
Post-treatment Physical Monitoring	In the fifth, sixth, seventh, 11th, 12th and 13th years following license issuance
Pre-replenishment Physical Monitoring	In the ninth and 14th years following license issuance and every five years thereafter
Biological Monitoring	In the fourth, fifth, sixth, tenth, 11th, 12th, 15th, 20th, and 25th year following license issuance

(b) Channel Modifications of Mainstem Trapping Pools at Project RM 30.3

(i) The licensee shall implement site modifications at the Cobble Sisters within five years of license issuance.

(ii) The licensee shall excavate a channel to connect mainstem flow to three isolated pools at a large cobble bar near PRM 30.3 to reduce the risk of fish becoming trapped during declining water surface elevations. Spoils from excavation will be used to fill a fourth pool near the channel margin.

(iii) The licensee shall conduct compliance monitoring at the Cobble Sisters within one year following implementation of the measure. Compliance monitoring will include documentation collected during implementation, such as survey data and photographs of the site before and after excavation.

(iv) Licensee shall repeat physical measurements to evaluate whether the site modifications continue to function as designed every ten years following construction and following one in 25 year high flow events. During the year following each physical monitoring effort, the FAWG will determine if remediation measures are needed to ensure that site modifications continue to satisfy design specifications. The licensee will implement the required measures to satisfy design objectives.

(v) The reporting and implementation schedule for channel excavation at the Cobble Sisters is summarized below.

PM&E Measure Activity	**Schedule**
Implementation Planning	Within three years of license issuance
Implementation	Within five years of license issuance
Compliance Report	Within six years of license issuance
Physical Monitoring	Every ten years following construction, and following flows exceeding a 25-year recurrence interval
Monitoring Report	Within one year of physical monitoring

(c) Mainstem Large Woody Debris at Tributary Deltas

(i) The licensee shall place two LWD jams at the Sullivan Creek delta and one LWD jam at the deltas of Sweet, Slate and Linton creeks (total of five LWD jams).

(ii) Licensee shall place and maintain LWD jams in the thalweg in the upper delta regions of the four tributaries to Boundary Reservoir identified in subsection (c)(i) above to minimize use by non-salmonids. The specific location and design of the LWD jams will be determined during implementation planning by the licensee in consultation with and subject to approval by the FAWG.

(iii) The licensee shall conduct implementation planning with final design specifications to be approved by the FAWG. Implementation planning will identify:

1. Specific locations for LWD jams at selected deltas

2. LWD jam design specifications for each location

3. Specific monitoring protocols

(iv) Licensee shall complete construction of the LWD jams within ten years following license issuance. The schedule for initial construction of the Sullivan Creek delta log jams may depend on upstream Mill Pond Dam removal activities.

(v) If permitting, landowner permission or other issues prevent implementation within ten years following license issuance, the licensee will determine, with approval from the FAWG, alternate locations for installing LWD jams, or will identify and implement alternative measures to provide additional cover in the tributary deltas with a commensurate schedule and level of effort.

(vi) Licensee will implement compliance and effectiveness monitoring for each LWD jam. The licensee shall conduct compliance monitoring and will provide documentation to the FAWG and the Commission that the measure has been implemented as specified. Effectiveness monitoring will evaluate the need for LWD jam repair or replenishment.

(vii) Licensee will issue a compliance report, including documentation collected during construction, repair, or replenishment within one year following implementation or repair of a LWD jam.

(viii) Licensee will conduct physical effectiveness monitoring during the ninth year following the construction of a structure and at ten-year intervals thereafter. In addition, licensee will conduct physical effectiveness monitoring to determine continued compliance with design specifications following major flood events (25-year event). The results of the effectiveness monitoring will be used to support adaptive management and adjustments to the PM&E measure during repair or log replenishment of a structure.

(ix) Licensee will repair or replenish the LWD jams within one year following physical effectiveness monitoring.

(x) Licensee will conduct three consecutive years of biological effectiveness monitoring within the first ten years following construction. Biological effectiveness monitoring will also be conducted concurrent with physical effectiveness monitoring through the term of the license.

(xi) The reporting and implementation schedule for mainstem LWD at tributary deltas is summarized below.

PM&E Measure Activity	Schedule
Implementation	Completed within ten years of license issuance, except Sullivan Creek delta which at the direction of the FAWG may be after the tenth year following license issuance depending on the influence of Mill Pond Dam removal
Compliance Reporting	Within one year following construction, repair or replenishment of LWD structures
Physical Effectiveness Monitoring	In the ninth year following implementation, and every tenth year thereafter; and after flows exceeding a 25-year recurrence interval
Biological Effectiveness Monitoring	Three consecutive years between initial construction and first scheduled repair/replenishment, and then concurrent with physical effectiveness monitoring
Monitoring Report	Within one year following physical or biological effectiveness monitoring

(d) Boundary Reservoir Fish Community Monitoring and Evaluation of Salmonid Predation at Select Tributary Deltas

(i) The licensee shall conduct fish community surveys to monitor changes in fish population abundance and size structure of focal species over time. Focal species will be westslope cutthroat trout, bull trout, mountain whitefish, smallmouth bass, northern pikeminnow and northern pike and may include other species as identified by the FAWG. The study design and final implementation schedule will be developed in consultation with and subject to approval by the FAWG.

(ii) The licensee shall conduct a fish community monitoring study in the fifth year following license issuance and at five-year intervals thereafter, unless otherwise directed by the FAWG. Planning for the fish community monitoring study component shall be completed during the calendar year prior to study implementation, and a summary report of field activities will be completed within one year of the completion of field surveys. The reporting and implementation schedule for fish community monitoring is summarized below.

PM&E Measure Activity	Schedule
Fish Community Study Plan	Within four years of license issuance and every fifth year thereafter
Conduct Fisheries Survey	In the fifth year following license issuance and every fifth year thereafter
Survey Completion Report	In the sixth year following license issuance and every fifth year thereafter

(iii) The licensee shall conduct the predation study to quantify the proportion of outmigrating native salmonids from select tributaries that are being consumed by predatory fish within the selected tributary deltas and determine consumption

rates of select predators. The licensee shall develop the study design and final implementation schedule in consultation with and subject to approval by the FAWG.

(iv) If the results of the predation investigation identify that a significant proportion of native salmonids are consumed by predators at tributary deltas, licensee could implement potential non-operational measures including predator control under the Entrainment Reduction program in the FAMP to improve native salmonid survival.

(v) The licensee shall conduct a tributary delta predation study in the fourth year and 15th year following license issuance, unless otherwise directed by the FAWG. A study plan will be completed during the calendar year prior to study implementation, and a summary report of field activities will be completed within one year of the completion of field surveys. The reporting and implementation schedule for the predation study is summarized below.

PM&E Measure Activity	**Schedule**
Tributary Delta Predation Planning	By end of calendar year prior to conducting delta predation study
Conduct Tributary Delta Predation Study	In the fourth and 15th years following license issuance
Tributary Delta Predation Study Report	Within one year following tributary delta predation field surveys

Article 9 (B). ***Upstream Fish Passage.***

(a) The licensee shall install, operate, maintain and monitor a single upstream trap and haul fishway facility (upstream fishway or fishway) in the Boundary Project tailrace as described in Section 5.2 of the Fish and Aquatics Management Plan. The purpose of this fishway is to provide safe, timely and effective passage for bull trout, cutthroat trout, and mountain whitefish (target fish species) in the Project area for the license term and any subsequent annual licenses.

(b) The licensee shall work collaboratively with the Fish and Aquatics Work Group (FAWG) and the approving agencies in all aspects of the fishway development and implementation processes. All FAWG decisions regarding fishway development and implementation are subject to the approval of the Department of the Interior (DOI), United States Forest Service (USFS), and the Washington Department of Ecology (Ecology).

(c) General provisions

(i) The licensee shall design and construct this upstream fishway using the best available scientific information, including but not limited to the NMFS 2008 Anadromous Salmonid Passage Facility Design Manual (Design Manual), taking into account the site specific conditions at the Project, biological information specific to the target species and other relevant information. The fishway shall be operated consistent with fisheries management goals and objectives for target species in the Pend Oreille River basin. In no case shall attraction flows exceed 1,650 cfs (3% of maximum generation discharge). The licensee must demonstrate that any departures from the Design Manual will be effective at providing safe, timely and effective passage for target species. The final design is subject to the approval of DOI, USFS and Ecology.

(ii) The licensee shall undertake a research and development phase of up to 12 years to evaluate the fishway entrance design, entrance location and attraction flow volumes that will achieve the purposes of the facility. Within 12 years following license issuance (two planning years, eight research years and two design years), the licensee shall file with the Commission for approval, a plan to install, operate and maintain an upstream trap and haul fishway. The licensee shall complete construction of the upstream fishway within two years of receiving the Commission's approval and shall monitor fishway operations for the license term and any annual licenses issued for the Project.

(iii) The licensee shall ensure that the fishway includes a fixed entrance(s) and a release location(s) at least one mile upstream of the Boundary Dam. The release location(s) shall be determined by the FAWG. Provided the fishway is constructed according to a design that has been approved by DOI, USFS, and Ecology, and is operated consistent with an approved installation, operation and maintenance plan, and subject only to such minor modifications as are described

in section (g) below, the fishway will satisfy all applicable upstream fish passage requirements.

(d) Fishway development plan

(i) Within two years of license issuance, the licensee shall file with the Commission a Fishway Development Plan (FDP) for collecting site-specific biological and engineering information required to site, design and install the upstream trap and haul fishway. The licensee shall implement the FDP for up to eight years. The FDP shall include methods for identifying the following, among other things:

1. Site-specific hydraulic conditions in the tailrace of Boundary Dam, under all operating scenarios

2. Proper location of the upstream fishway and entrance(s) given site specific considerations of the Boundary Dam spillway, sluiceway, powerhouse and tailrace area

3. Information on swimming performance, behavior, and migratory pattern of target fish species downstream of the dam sufficient to determine the appropriate location of the fishway entrance(s) under all operating scenarios and related environmental cues, including but not limited to temperature, total dissolved gas, water velocity and lighting; fishway attraction effectiveness shall be evaluated using target species from upstream sources or that demonstrate upstream migration behavior

4. Structures, devices and measures to allow adjustment of the fishway entrance(s) and auxiliary flow as necessary to effectively attract target fish species into the upstream fishway including the influence of cooler attraction flow water if incorporated into the test facility

5. Structures, devices, and measures to allow adjustment of water flow, water velocity and water surface elevations within the upstream fishway as needed to effectively convey target fish species into the fish trapping device

6. Provisions for counting and evaluating fish passage through the upstream fishway

7. Provisions for transport and release of fish upstream of the dam

(ii) The licensee shall conduct studies pursuant to the FDP using the most appropriate technology available, including mark and recapture methods, as determined by the FAWG in consultation with a Technical Advisory Committee (TAC) (see section (f) below). The TAC will assist the licensee and the FAWG with the design of upstream fish passage studies and analysis of study results. Target fish

species being evaluated will represent the size distribution of migrating bull trout, cutthroat trout and mountain whitefish in the Project area.

(iii) The licensee may evaluate prototype facilities within the eight-year FDP implementation phase.

(e) Fishway design and construction plan

(i) Within 12 years following license issuance (two planning years, eight research years and two design years), the licensee shall file with the Commission for approval, a Fishway Design and Construction Plan (FDCP) to install, operate and maintain an upstream trap and haul fishway at the Boundary Dam. The licensee shall complete construction of the upstream fishway within two years of receiving the Commission's approval on the FDCP.

(ii) The licensee shall integrate the site specific and biological information developed during the FDP implementation phase in the FDCP. The FDCP shall include, but shall not be limited to: (1) functional design drawings; (2) quantification of flows needed to operate the fishway; (3) a proposed operations and maintenance plan; (4) a schedule for installing the facilities; (5) the fishway location, operational period, design flow range, trap holding pools, crowder and brail systems; (6) sorting and transport provisions; (7) sample/anesthetic/recovery tanks; and (8) structures, devices and measures to allow adjustment of auxiliary flow at the fishway entrance(s) as necessary to effectively attract target fish species into the upstream fishway.

(iii) The licensee shall develop the fishway design based upon the best available scientific information, including the Design Manual. Any departures from the Design Manual will be considered by the FAWG based on compelling evidence and in consultation with the TAC (see section (f) below). The licensee must demonstrate that any departures from the Design Manual will be effective at providing safe, timely and effective passage for target species. The final design is subject to the approval of DOI, USFS and Ecology.

(iv) Within 12 months of initial fishway operation, the licensee shall file with the Commission a Hydraulic Evaluation Report documenting compliance with all design specifications.

(f) Collaboration with the FAWG

(i) The licensee shall develop all plans and the fishway design, and shall conduct all studies in collaboration with the FAWG. The licensee shall convene a TAC consisting of fish passage design experts to assist in developing all plans and designs. The licensee shall select the fish passage design experts in consultation with and subject to approval by the FAWG. Pursuant to the Settlement

Agreement, the TAC will provide recommendations to the FAWG pertaining to the site, design and installation of the upstream fishway as well as determine whether development of a computational fluid dynamic or physical scale model of the Boundary Dam and appurtenant facilities are necessary. Decisions regarding fish passage design and evaluation are subject to the dispute resolution provision of the Settlement Agreement.

(ii) When filing designs and plans, the licensee shall include: documentation of consultation, copies of comments and recommendations, and specific descriptions of how comments and recommendations were accommodated by the licensee. If the licensee does not adopt a recommendation from the FAWG or obtain a required agency approval, the filing shall include its reasoning based on Project specific information.

(iii) The licensee shall provide fishway design drawings (including drawings for any prototype or test facilities to be evaluated) to the FAWG for review at the 30% (functional design), 50% and 90% completion stage and the licensee shall consult with the FAWG at each stage. For approval, a 100% final design shall be provided by the licensee to DOI, USFS and Ecology at least two weeks prior to filing with the Commission.

(g) Compliance, effectiveness and long-term monitoring

(i) Within 13 years following license issuance, the licensee shall file a Post Construction Evaluation Plan (PCEP) with the Commission. The PCEP shall include methods for documenting fish passage efficiency, passage time, mortality, injury and fallback rates under a representative range of operating scenarios and environmental conditions. The licensee shall begin implementing the PCEP no later than one year following completion of the Hydraulic Evaluation Report and shall continue until safe, timely and effective passage is demonstrated over a range of operating conditions within the first five years of operation. The licensee shall modify the fishway based on results of the evaluations and reevaluate fishway effectiveness within this time frame and effort, as determined necessary by the FAWG. PCEP implementation costs including evaluation, planning and study permitting shall not exceed $1,000,000 (1 million dollars).

(ii) The following limitations shall apply:

1. The need for any modifications shall be determined by the FAWG within five years of completing the Hydraulic Evaluation Report and shall be based on information collected from the PCEP.

2. For any fishway constructed pursuant to Design Manual criteria (e.g., a fishway that includes attraction flow of 1,650 cfs) and approved by DOI, USFS, and Ecology, the licensee shall make minor modifications

including permitting, design and construction for increasing fishway effectiveness within an amount not to exceed 5% of facility construction costs.

3. For any fishway that includes departures from the Design Manual, the licensee shall make minor modifications including permitting, design and construction for increasing fishway effectiveness within an amount not to exceed 10% of facility construction costs.

(iii) 13 years after the PCEP evaluations and any related modifications have been completed, the FAWG will determine the need and scope for reevaluating fishway performance (including fish passage efficiency, passage time, mortality, injury and fallback rates). The licensee shall conduct all studies required by the FAWG under typical project operations. If fishway performance has decreased when compared to the initial PCEP evaluations, the licensee shall implement any corrective measures determined necessary by the FAWG to return performance to its previous level.

(iv) In addition, the licensee shall implement one year fishway performance evaluation(s) at any time during the license term if substantive changes occur in project operations, structures or tailwater bathymetry (caused, for example, by severe flow events). If performance has decreased when compared to the original PCEP evaluations, the licensee shall implement any corrective measures determined necessary by the FAWG to return performance to its previous level.

(h) Reporting and schedule

(i) The licensee shall prepare annual reports summarizing information related to monitoring, operations, problems encountered, program status and results of activities during the previous 12 months. Once the fishway has been installed and is operational, annual reports will also quantify the number and condition of target fish species captured and transported and the location of their release. Annual reports will also document fishway operations including tailrace water surface elevations, tailrace flow levels, fishway attraction flows, hours of fishway operation and any maintenance or operational issues identified over the year and repairs implemented to resolve the issues.

(ii) The implementation schedule for the upstream passage program is summarized as follows:

Protection, Mitigation, and Enhancement (PM&E) Measure Activity	**Schedule**
Implementation Plan	Within two years of license issuance
Fishway Design Research	In the third through the tenth years following license issuance
Fishway Design	In the tenth through the 12th years following license issuance
Fishway Design Submittal to the Commission	Within 12 years of license issuance
Fishway Construction	Within two years of receiving the Commission's approval of fishway design
Fishway Operation	Within two years of receiving the Commission's approval of fishway design
Status Report	Annually following license issuance

Article 9 (C). ***Reduction of Project Related Entrainment Mortality.***

(a) The licensee shall develop and implement studies sufficient to quantify the effects of entrainment on target species (bull trout, westslope cutthroat trout and mountain whitefish) and to determine whether any population of target fish species (i.e., a unique population that constitutes a substantial percentage of fish in the Project area or that has a unique evolutionary niche that requires special protection) or a substantial number of target fish are affected by Project entrainment. Based on the results of these studies, the licensee shall either build facilities at the Project to improve Boundary Dam survival of target species or implement appropriate non-operational measures to improve survival of target species pursuant to the provisions of this program as described in Section 5.3 of the Fish and Aquatics Management Plan.

(b) Successful implementation of this program by the licensee shall fully mitigate for the effects of entrainment on target species by either: (1) preventing entrainment at the Project, (2) reducing entrainment at the Project and mitigating for the remaining effects, or (3) fully mitigating for the effects of entrainment through other measures. The decision as to whether entrainment is best addressed through options 1, 2 or 3 as defined above, will be made by the licensee in consultation with the Fish and Aquatics Work Group (FAWG) for approval by the Department of the Interior (DOI), United States Forest Service (USFS) and the Washington Department of Ecology (Ecology) based on site specific information developed under this program.

(c) The licensee shall work collaboratively with the FAWG and the approving agencies in all aspects of this program. All FAWG decisions regarding the reduction of project related entrainment are subject to the approval of DOI, USFS and Ecology.

(d) General provisions

(i) The licensee shall implement this article in three phases: (1) an initial entrainment assessment and evaluation phase will occur from the first through the 18th year following license issuance at a cost not to exceed $23,000,000 (23 million dollars); (2) implementation of entrainment reduction measures (if needed) scheduled for the 19th through the 33rd year following license issuance at a cost not to exceed an additional $47,000,000 (47 million dollars), plus any unexpended funds from the $23,000,000 (23 million dollars) allocated during phase 1; and (3) reevaluation of entrainment related mortality and adaptive management from the 34th year following license issuance through the end of the license term with no funding limitations.

(ii) The licensee shall design and implement all studies pursuant to the best available science and shall use the most appropriate techniques available at the time of the study. The licensee shall design all studies to achieve a high level of statistical rigor and precision (in consideration of fish available for study) satisfactory to the FAWG. If requested by the FAWG, the licensee shall acquire the assistance of

technical experts experienced in salmonid population theory, structure and dynamics to assist with study design development and interpretation of results.

(iii) The licensee shall develop and implement all plans, designs and studies in consultation with the FAWG. The licensee shall convene a Technical Advisory Committee (TAC) consisting of fish passage design experts to assist them in developing all plans, designs and studies. The licensee shall select the fish passage design experts in consultation with the FAWG.

(iv) If at any time during this process, the licensee is required to develop entrainment reduction facilities, design drawings shall be provided to the FAWG for review at the 30% (functional design), 50% and 90% completion stage and the licensee shall consult with the FAWG at each stage. The licensee shall allow a minimum of 30 days for the FAWG to comment and make recommendations before filing any designs and plans with the Commission. A 100% final design shall be provided to DOI, USFS, and Ecology for approval two weeks prior to filing with the Commission. When filing designs and plans, the licensee shall include documentation of consultation, copies of comments and recommendations; and specific descriptions of how comments and recommendations were accommodated by the licensee. If the licensee does not adopt a recommendation from the FAWG or obtain a required agency approval, the filing shall include its reasoning based on Project specific information.

(e) Phase 1 – Entrainment assessment and evaluation

(i) Fish behavior and population studies

1. Within two years of license issuance, the licensee shall file with the Commission for approval a Fish Behavior and Population (FBP) study plan to: (1) determine swimming performance, behavior and migratory patterns of target fish species in the Project area; (2) determine whether any population of target species or a substantial number of target fish are affected by Project entrainment; (3) quantify the abundance of target species outmigrating from selected Boundary Reservoir tributaries; and (4) determine the appropriate location of any entrainment reduction facilities that may be needed in the future.

2. Upon Commission approval, the licensee shall implement the FBP for a period of thirteen years. The licensee shall, in consultation with the FAWG, review the study plan every three years and shall make modifications to the FBP as appropriate based on data collection results.

(ii) Dam passage survival studies

1. Within 15 years of license issuance, the licensee shall file with the Commission for approval a three-year Dam Passage Survival (DPS) study

plan. The licensee shall develop the study plan in consultation with the FAWG and shall implement the plan in years 16 through 18 following license issuance. The licensee shall, in consultation with the FAWG and for approval of DOI, USFS, and Ecology, determine dam survival by calculating the survival rate of target species passing through the Boundary Project powerhouse, sluiceways and spillways over the three-year study period.

(iii) Forebay hydraulic study

1. Concurrent with development of the DPS study plan, the licensee shall also, in consultation with the FAWG and with the assistance of the TAC, design a study plan to assess hydraulic conditions in the Boundary Dam forebay under all Project operations. The Hydraulic study plan shall include field measurements and may require development of a computational fluid dynamic, or physical scale model of Boundary Dam and its appurtenant facilities. This study plan will support the development of dam passage survival estimates under a wide range of operating scenarios and environmental conditions, and will assist in the development of entrainment reduction facilities if needed.

(iv) Funding

1. This 18 year evaluation phase shall not exceed $23,000,000 (23 million dollars).

(f) Phase 2 – Implementation of entrainment reduction measures

(i) Upon completion of the FBP, DPS and Hydraulic studies (estimated at the 18th year following license issuance), the licensee shall, in consultation with the FAWG and for approval by DOI, USFS, and Ecology, determine whether a population (i.e., a unique population that constitutes a substantial percentage of fish in the Project area or that has a unique evolutionary niche that requires special protection) or a substantial number of target fish, are affected by Project entrainment. Based upon this decision, the licensee shall take one of the following actions:

1. If Boundary Dam survival of target species greater then four inches is less than 60 %, the licensee shall design, build, operate, maintain, monitor, and, as needed, modify facilities at the Project to improve Boundary Dam survival of target species. The licensee shall develop the facilities with the assistance of the TAC, in consultation with the FAWG, and for approval by DOI, USFS and Ecology.

The licensee shall file a plan for the installation, operation, maintenance and evaluation of the facilities with the Commission for approval within

two years of the 18th year following license issuance Decision Point. Facility designs shall include, but are not limited to: (1) functional design drawings of the proposed facilities, (2) a preliminary operations and maintenance plan, (3) a schedule for installing the facilities, (4) a post construction evaluation plan, and (5) provisions for short and long-term monitoring and adaptive management.

2. If Boundary Dam survival of target species greater then four inches is greater than 60 %, the licensee shall implement non-operational measures to improve Project survival commensurate with the Project's effects on a target species. The licensee shall identify, prioritize, implement and monitor non-operational measures in consultation with the FAWG subject to the approval of DOI, USFS and Ecology.

   The licensee shall submit a plan and schedule for implementing these measures within one year of the 18th year following license issuance Decision Point.

3. Beginning in 19th year following license issuance, if entrainment reduction measures are determined to be necessary, the licensee shall make available up to an additional $47,000,000 (47 million dollars) through the 33rd year following license issuance (plus any unexpended funds from the $23,000,000 (23 million dollars) allocated for studies during the 18 year evaluation phase) to either build facilities at the Project, to improve Boundary Dam survival of target species or implement appropriate non-operational measures to improve survival of target species.

(g) Phase 3 – Reevaluation and adaptive management

(i) Based upon monitoring conducted between the 19th and 33rd year following license issuance, the licensee shall, in consultation with the FAWG, determine whether a population or a substantial number of target fish continue to be affected by Project entrainment. Based upon the results of the reevaluation, the licensee shall take one of the following actions.

1. If Boundary Dam survival of target species greater then four inches is less than 60 % the licensee shall, in consultation with the FAWG, construct a new facility, expand the existing facility, or make operational changes to improve Boundary Dam survival only if it has been determined that: (1) a population (i.e., a unique population that constitutes a substantial percentage of fish in the Project area or that has a unique evolutionary niche that requires special protection) or a substantial number of target fish, continue to be affected by Project entrainment; and (2) the proposed facility or operational change has a high likelihood of reducing

entrainment effects on a unique population or a substantial number of target fish. Required facilities will be developed by the licensee with assistance from the TAC in consultation with the FAWG for approval by DOI, USFS and Ecology.

If a new facility or expansion of an existing facility is required, the licensee shall file a plan for the installation, operation, maintenance and evaluation of the facilities with the Commission for approval within two years of the 34th year following license issuance Decision Point. Facility designs shall include, but are not limited to: (1) functional design drawings of the proposed facilities, (2) a preliminary operations and maintenance plan, (3) a schedule for installing the facilities, (4) a post construction evaluation plan, and (5) provisions for short and long-term monitoring and adaptive management.

If operational changes are determined appropriate, the licensee in consultation with the FAWG and subject to the approval of DOI, USFS and Ecology, shall file a plan for timing, frequency and magnitude of proposed operational changes within two years of the 34th year following license issuance Decision Point. Any operational changes would not be implemented until they received Commission approval.

Information available in the 34th year following license issuance may suggest that alternative forms of mitigation would better address Project effects. In such a case and with the approval of DOI, USFS and Ecology, the licensee shall implement these alternative mitigation measures at a level of effort commensurate with the Project's effects on a target species (i.e., on a unique population or a substantial number of target fish).

2. If Boundary Dam survival of target species greater then four inches is greater than 60 %, the licensee shall implement new or continue non-operational measures as needed to address Project effects with a level of effort commensurate with the Project's effects on a unique population or a substantial number of target fish. Such non-operational measures shall be determined by the licensee in consultation with the FAWG and subject to the approval of DOI, USFS and Ecology.

(h) Reporting and schedule

(i) As part of the entrainment reduction program, the licensee shall prepare annual reports summarizing information related to study design, monitoring, operations, problems encountered, program status and results of activities during the previous 12 months. If an entrainment reduction facility is constructed, the annual report will quantify the number and condition of target fish species captured and transported and the location of their release. It will also document operations

including forebay flow and water surface elevations, facility flows, hours of facility operation and any maintenance or operational issues identified over the year and repairs implemented to resolve issues. The licensee shall provide the annual reports to the FAWG for a 30-day review. Comments and recommendations by the FAWG will be included in the annual reports submitted to the Commission along with specific descriptions of how any comments were accommodated in the report. If recommendations are not adopted, the Commission filing will include the licensee's explanations based on Project-specific information.

(ii) The implementation schedule for the entrainment reduction program is summarized in the following table:

Protection, Mitigation, and Enhancement (PM&E) Measure Activity	**Schedule**
Research and Monitoring Study Plan and Initiation of Study Components	Within two years of license issuance
Conduct Research and Monitoring	In the third through 15th years following license issuance
Calculate Dam Survival	In the 16th through 18th years following license issuance
Hydraulic Evaluations and Conceptual Facility Design	In the 16th through 18th years following license issuance
Entrainment Reduction Measure Decision	In the 18th year following license issuance
Implement Non-operational Measures or Design, Build, Operate, Monitor and Modify Facilities	In the 19th through 33rd years following license issuance
Re-evaluate Project Entrainment	In the 34th year following license issuance
Implement Non-operational Measures or Construct New Facility, Expand Existing Facility or Implement Operational Measures	Beginning in the 34th year following license issuance and thereafter through remaining license term
Status Report	Annually following license issuance

Article 9 (D). ***Tributary Non-native Trout Suppression and Eradication*.**

The licensee shall implement non-native salmonid suppression and eradication activities in portions of 23 waterbodies in the Boundary Reservoir watershed as described in Section 5.4.2 of the Fish and Aquatics Management Plan (FAMP).

(a) Within one year of license issuance, the licensee shall submit to the Commission an integrated schedule approved by the Fish and Aquatics Work Group (FAWG) for the implementation of non-native salmonid suppression and eradication activities. The schedule shall be coordinated with tributary enhancement activities and native salmonid conservation activities required by the FAMP. The integrated schedule shall prioritize activities and include milestones for completing design, consultation, regulatory review, permitting and implementation. The general schedule included in the FAMP will guide the development of the integrated schedule to be filed with the Commission.

(b) The licensee's level of effort for suppression may vary among stream reaches but shall be consistent with an average of six electrofishing efforts of one to three passes per reach every ten years from the start of implementation through the remainder of the license term.

(c) Eradication of non-native salmonids by the licensee shall be consistent with a level of effort associated with three chemical treatment applications assuming the use of antimycin, rotenone or an equivalent fish toxicant.

(d) The licensee shall annually review scheduled activities in consultation with the FAWG as necessary to consider proposed changes in the upcoming year's efforts, including consideration of alternative suppression and eradication measures. Following FAWG approval of the implementation measures, the licensee shall develop specific plans, obtain all necessary permits and complete any required environmental reviews such that the measures can be implemented pursuant to the approved schedule.

(e) The licensee shall use adaptive management strategies, in consultation with and subject to approval of the FAWG, for implementing non-native salmonid eradication and suppression measures. Adaptive management will be based on reach-specific conditions and objectives.

(f) The licensee shall document compliance in annual reports. The reports will describe activities completed during the year and identify any proposed modifications for the following year. The reporting and implementation schedule for non-native trout suppression and eradication is summarized below:

Protection, Mitigation, and Enhancement (PM&E) Measure Activity	**Schedule**
Implementation Schedule	Within one year of license issuance
Implementation Planning	One to two years in advance of the scheduled implementation year for each waterbody
Implementation in Sullivan Creek and Tributaries	Begins within one to ten years of license issuance
Implementation in Sweet Creek	Begins within 20 years of license issuance
Implementation in Slate Creek, Uncas Gulch and Flume Creek	Begins within 11 to 15 years of license issuance
Implementation in Pewee Creek, Lime Creek, Lake Lucerne and Sand Creek	Begins within 16 to 20 years of license issuance
Annual Reports	Following each year suppression or eradication efforts occur
Eradication Effectiveness Monitoring and Reporting	Within one year following treatment activities

Article 9 (E). ***Tributary Fish Community and Aquatic Habitat Measures.***

(a) The licensee shall implement the following aquatic habitat measures, pursuant to the general provisions identified below and the detailed provisions included in the Fish and Aquatics Management Plan (FAMP), Sections 5.4.3 through 5.4.10.

(b) Specific aquatic habitat measures include the following:

(i) Within ten years of license issuance, the licensee shall complete riparian improvements and stream channel enhancement in Sullivan Creek from river mile (RM) 0.30 to RM 0.54. In consultation with the FAWG, the schedule for implementation of this measure may be modified dependent upon the Mill Pond Dam decommissioning schedule.

(ii) Within ten years of license issuance, the licensee shall complete stream and riparian improvements in Sullivan Creek from RM 2.3 to RM 3.0 and North Fork Sullivan Creek.

(iii) Within ten years of license issuance, the licensee shall complete Large Woody Debris (LWD) placement and road improvements in Sullivan Creek and selected tributaries upstream of the confluence with Outlet Creek.

(iv) Within 20 years of license issuance, the licensee shall complete culvert replacements and LWD placement in tributaries to Boundary Reservoir.

(v) Within 20 years of license issuance, the licensee shall complete riparian planting, culvert replacement, and channel reconstruction measures in Linton Creek from RM 0.00 to RM 0.24.

(vi) Within 20 years of license issuance, the licensee shall complete riparian and channel improvements in Sweet Creek from RM 0.0 to RM 0.6.

(vii) Within 25 years of license issuance, the licensee shall complete habitat enhancement in Tier-2 tributaries to the Boundary Reservoir.

(viii) The licensee shall complete restoration of dispersed recreation sites located in Sullivan Creek riparian areas consistent with the schedule detailed in the FAMP.

The specific scope of each measure is detailed in the FAMP.

(c) By the end of the first year following license issuance, the licensee shall submit to the Commission an integrated schedule that has been approved by the Fish and Aquatics Work Group (FAWG) for the implementation of these measures. The licensee shall coordinate the schedule with tributary non-native salmonid suppression and eradication activities and native salmonid conservation activities

required by the FAMP. The integrated schedule shall prioritize activities and include milestones for completing design, consultation, regulatory review, permitting and implementation. The timelines included in the FAMP will guide the development of the integrated schedule to be filed with the Commission.

(i) The licensee shall develop specific plans for each measure according to the integrated schedule in paragraph (c). Each plan shall include specific goals, objectives, cost estimates, anticipated restoration techniques, maintenance requirements and monitoring plans and methods. Specific, measurable success criteria shall also be developed by the licensee in consultation with the FAWG and included for each measure. For each measure that includes a construction component, the plan will include final construction drawings. Where applicable, measures should be addressed on a programmatic basis.

(d) The licensee shall develop all plans pursuant to Article 2 and the FAMP. As part of the integrated schedule in paragraph (c), licensee shall, in consultation with and approval by the FAWG, develop a Tributary Management Plan (TMP) including a subsection for each tributary that will receive treatments. The Tributary Management Plan shall provide a coordinated approach for implementing tributary habitat restoration measures. The TMP will identify appropriate target fish population sizes and species to be achieved through implementation of measures in the FAMP. The licensee shall include a schedule and scope of treatments for each tributary to ensure that treatments are complementary to the population and habitat goals.

(e) Once a restoration measure has been completed, the licensee shall evaluate the measure every eight years for the license term to ensure continued compliance with success criteria specific to measures and developed in consultation with and approved by the FAWG. If a restoration measure falls below success levels as determined through eight-year effectiveness monitoring, the licensee shall, within 60-days, develop a plan for repairs to correct the deficiencies, including a schedule for proposed work and further monitoring, in consultation with the FAWG. A summary of repairs will be included in the annual report.

In addition to the eight-year effectiveness monitoring, the licensee shall annually, and following major (25 year) flood events, inspect measures as described in the FAMP.

The licensee shall include the results of all monitoring and summary of repairs in the annual reports filed with the Commission.

(f) In the event that any of the above measures cannot be implemented, alternative measures will be implemented as provided in the FAMP.

Article 9 (F). ***Mill Pond Dam Site Monitoring and Maintenance.***

(a) As provided in Section 5.5 of the Fish and Aquatics Management Plan (FAMP), the licensee shall, beginning at the point in time when the Commission determines that the Mill Pond Decommissioning Plan for Pend Oreille PUD's surrender of its license for the Sullivan Creek Project has been completed, monitor and provide maintenance where necessary, to the area covered by the Mill Pond Decommissioning Plan for ten years (with monitoring in the second, fourth, sixth and tenth years) and once every eight years thereafter to ensure:

(i) stream channel is functioning in accordance with the design criteria

(ii) vegetation is becoming established

(iii) control of non-native plant species

(b) Within one year from when the Commission determines that the Mill Pond Decommissioning Plan for Pend Oreille PUD's surrender of its license for the Sullivan Creek Project has been completed, the licensee shall develop plans and protocols for monitoring and maintenance of the Mill Pond Dam site in consultation with the Fish and Aquatics Work Group (FAWG) and subject to approval by United States Forest Service and the Washington Department of Ecology.

(c) After any major flood event in Sullivan Creek, the licensee shall evaluate the site to determine whether the stream channel continues to meet design criteria. The licensee will undertake any measures necessary to assure that the stream channel is meeting agreed to design parameters. In the event of flows greater than a flood event having a 100-year recurrence interval, the licensee will not be responsible for repair of stream restoration measures that may have been damaged from such an event.

Article 9 (G). ***Native Salmonid Conservation Program.***

(a) The licensee shall implement provisions of the Fish and Aquatics Management Plan (FAMP), Section 5.6, to design, construct and operate a fish propagation facility for the production of native salmonids to supplement tributaries draining into the Boundary Reservoir. The licensee shall release propagated native salmonids to supplement existing populations, or to introduce native salmonids of resident and/or migratory life histories into reaches where they are not currently present. Target release sites will include those reaches where non-native trout have been actively suppressed or where high quality, but underutilized habitat is available in tributaries draining into the Boundary Reservoir. Supplementation of native salmonids is expected to complement non-native trout suppression and/or stream habitat improvement activities. The licensee shall be responsible for the appropriate marking of all outplanted fish for the purpose of identifying these fish during future monitoring efforts.

(b) The initial capacity of the facility will be up to 45,000 eyed eggs, fry, or fingerling (three to four inch) fish per year and multiple age class broodstock (capacity of 1,000-2000 pounds). Annual production will be commensurate with the need to outplant fish in tributaries draining into the Boundary Reservoir

(c) Licensee will design the facility to simultaneously propagate two species of fish and several year classes (life stages); selection of species, stocks and lifestages to be produced would be determined in consultation with and subject to approval by the Fish and Aquatics Work Group (FAWG). In addition, licensee will ensure the facility will have the capacity to sustain the necessary numbers of broodstock fish to produce the number of eggs, fry or fingerlings for the purposes of the Conservation Program.

(d) Licensee shall use a multi-step approach to implement this measure. The licensee shall complete each step in consultation with and subject to approval by the FAWG. Preliminary planning suggests that the 40-acre Washington Department of Fish and Wildlife (WDFW) parcel on Skookum Creek, which formerly included the Usk Hatchery, is a potential location for the propagation facility.

(i) The first step for the licensee in the development of the native salmonid conservation facility shall be to confirm the feasibility of the Usk Hatchery site. If this site proves to be infeasible, the licensee will consider alternatives including purchase or funding of an alternate existing facility, or development at a new site with an appropriate source of water. If a feasible site cannot be identified, the licensee will re-direct mitigation efforts towards the purchase of suitable eggs, fry or fingerlings from another source to meet population goals or toward commensurate protection, mitigation, and enhancement (PM&E) measures as determined in consultation with and subject to approval by the FAWG.

(ii) The second step for the licensee shall be to complete implementation planning that includes the following:

1. Goals and policies of federal and state agencies and the Kalispel Tribe regarding conservation facilities and native salmonid recovery

2. Risks and benefits of supplementing bull and/or westslope cutthroat trout in the Project area

3. Mitigation measures to be used to reduce risk (e.g., of spreading disease, domestication, etc.)

4. A conceptual level description and engineering design for the facility, with specifications

5. Description of any off-site facilities or techniques that could be used as part of release strategies (e.g., acclimation and volitional release ponds, streamside or instream incubation of eyed eggs, etc.)

6. Sources and techniques to be used for collecting broodstock

7. Target production levels by life stage

8. A hatchery genetics management plan

(iii) The third step for the licensee shall be preparation of draft and final engineering plans for the facility, completing any required regulatory review (e.g., NEPA compliance) and obtaining any needed permits. Following approval of final design and permitting, the licensee will construct the facility and fund operation and maintenance for the license term.

(e) The licensee shall complete implementation planning within three years of license issuance and the facility will be operational within six years of license issuance.

(f) The licensee shall prepare a construction compliance report within one year following construction of the facility that will document any variances from the implementation planning, engineering and construction steps.

(g) Prior to the fish conservation facility being operational, the licensee shall annually summarize its fish conservation activities of the previous 12 months. Once the facility is operational, the licensee shall annually summarize the following information: (i) numbers, lifestages, size and species of fish produced; (ii) timing and locations of releases; (iii) percent survival between life stages; (iv) results of effectiveness monitoring; (v) disease outbreaks, other problems and remedies that

were implemented to reduce the risk of problems reoccurring; and (vi) effectiveness monitoring in (j).

(h) The licensee shall file status reports every five years that summarize the annual reports and provide more detailed analysis and assessment of trends in the data. The five-year status reports will also describe any changes in production or release strategies developed in consultation with and subject to approval by the FAWG and the rationale for implementing the changes.

(i) Licensee, in consultation with and subject to approval by the FAWG, shall establish population goals for the Conservation Program by determining appropriate tributary target fish populations desirable for the purpose of establishing self-sustaining, native stocks of fish. Optimal outplanting strategies for achieving population goals will be identified by the licensee in consultation with and subject to approval by the FAWG through monitoring and evaluating multiple outplanting strategies that consider appropriate fish sizes, outplanting densities, frequency and timing. Each outplanting strategy will have independent markers/identifiers for analysis (e.g., otolith marks utilizing calceine, thermal, strontium chloride). The licensee shall monitor the initial success of outplanted native salmonids and conduct periodic monitoring until population goals are achieved. The licensee shall evaluate the reproductive success of outplanted native salmonids to determine, in consultation with and subject to approval by the FAWG, if population goals are met. The licensee shall adjust the conservation schedule and numbers subject to approval of the FAWG.

(j) In consultation with the FAWG, the licensee shall evaluate the effectiveness of the Conservation Program, including the success of alternate outplanting strategies, reproductive success of outplanted fish, or other aspects of the Conservation Program pursuant to the FAMP. The results of effectiveness monitoring will be included in the annual report.

(k) The reporting and implementation schedule for the native salmonid conservation facility is summarized below.

PM&E Measure/Activity	**Schedule**
Complete Implementation Planning	Within three years of license issuance
Facility Draft and Final Engineering Plans	Within four years of license issuance
Facility Construction	Within six years of license issuance
Begin Operations	Within six years of license issuance
Construction Compliance Monitoring Report	Within seven years of license issuance
Annual Reports	Every year
Five-year Status Reports	Every fifth year

Article 9 (H). ***Recreational Fish Stocking Program.***

(a) The licensee shall implement provisions of the Fish and Aquatics Management Plan (FAMP), Section 5.7, to provide for the annual stocking of approximately 11,678 pounds of trout in 18 lakes within a 15-mile area around the Project beginning no later than within two years of license issuance.

(b) Trout species stocked in these lakes will consist of westslope cutthroat, rainbow, rainbow triploid or tiger trout, and may include fall fry, fingerlings, spring fry and catchable-size fish. The number, size and species of fish, planting schedule and location may be adjusted by licensee in consultation with and approval by Washington Department of Fish and Wildlife (WDFW).

(c) Within one years of license issuance, the licensee shall, in consultation with and approval by WDFW, complete implementation planning to identify:

(i) Pre-stocking monitoring protocols

(ii) Source of fish

(iii) Number, size and species of fish, planting schedule and location

(iv) Stocking protocols

(d) The licensee shall provide for annual monitoring and evaluation of lakes receiving the stocked fish prior to the springtime opening day of trout season. At least six of the lakes receiving stocked fish will be monitored each year on a rotating subset of the 18 lakes. Monitoring activities will consist of yearly fall or pre-opening day spring index gillnetting to evaluate recruitment of planted trout fry, trout growth rates, relative trout abundance, and detection of illegally introduced and/or undesirable fish species. Survey timing, location and protocol will be developed by the licensee in consultation with and approval by WDFW.

(e) The licensee shall provide for opening day creel census on two lakes per year. Lakes to be creel-sampled will be selected each year in consultation with the WDFW.

(f) The licensee shall prepare an annual report identifying the amount, size, species, timing and location of stocking efforts. The licensee shall also prepare the results of monitoring and evaluation activities, activities planned for the upcoming year and highlight any proposed changes from previous protocols.

Article 9 (I). ***Fund for Habitat Improvements in Tributaries to Sullivan Lake.***

(a) Within one year of license issuance, licensee shall establish a $2.5 million (2.5 million dollar) fund called the Sullivan Lake Upper Tributary Fund in an interest bearing account for improving aquatic habitat in Harvey Creek, Noisy Creek and Jungle Creek as described in Section 2.6 of the Fish and Aquatics Management Plan (FAMP).

(b) Licensee shall have no obligations for any other habitat measures in tributaries to Sullivan Lake other than the Sullivan Lake Upper Tributary Fund.

(c) Licensee shall make fund distributions for measures in tributaries to Sullivan Lake in installments at the discretion of the Fish and Aquatic Work Group (FAWG) for planning and implementation activities.

(d) In the event that there are any unexpended funds in the Sullivan Lake Upper Tributary Fund after the measures described above have been completed, licensee shall use such unexpended funds for purposes of achieving additional habitat improvement in tributaries to the Boundary Reservoir as directed by the FAWG.

Article 10. ***Escalation*.**

(a) Unless otherwise indicated, all costs or payment amounts specified in dollars in the New License and Management Plans shall be deemed to be stated as of the year 2009, and licensee shall escalate such sums as of January 1 of each following year (starting in January 2012, or in the year preceding the Commission License issuance, whichever is later) according to the following formula:

AD = D x (NGDP)/(IGDP)

Where:

AD = Adjusted dollar amount as of January 1 of the year in which the adjustment is made

D = Dollar amount prior to adjustment

IGDP = "GDP-IPD" for the third quarter of the year before the previous adjustment date (or, in the case of the first adjustment, the third quarter of the year 2009)

NGDP = "GDP-IPD" for the third quarter of the year before the current adjustment date

(b) "GDP-IPD" is the value published for the Gross Domestic Product Implicit Price Deflator by the United States Department of Commerce, Bureau of Economic Analysis in the publication Survey of Current Business, in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted upon approval by the Commission. If the base year for "GDP-IPD" is changed or if publication of the index is discontinued, the licensee shall notify the Commission as soon as possible and recommend, after consultation with the Settlement Agreement Parties, adjustments or an alternative index that achieves the same economic effect.